HYBRID COILS HAVING AN IMPROVED HEAT TRANSFER CAPABILITY

INVENTOR: Johan C. Compter, Eindhoven (NL)

Correspondence Address:
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510 (US)

ASSIGNEE: KONINKLIJKE PHILIPS ELECTRONICS, N.V., EINDHOVEN (NL)

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ABSTRACT

A hybrid coil (11) employs a wire layer (22), a wire layer (23) adjacent the wire layer (22), and a wire layer (24) adjacent the wire layer (23). The hybrid coil (11) further employs a thermal conductive insulator (42) physically disposed within a space between the wire layer (22) and the wire layer (23), and a thermal conductive insulator (43) physically disposed within a space between the wire layer (23) and the wire layer (24). The thermal conductive insulators (42, 43) can be electrically disconnected, and each thermal conductive insulator (42, 43) can consists of an aluminum foil (42a, 43a) having oxide layers (42b, 43b, 42c, 43c) on each side thereof.